DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Industrial Visit Report

The Department of Computer Science and Engineering organized an industrial visit to **the Central Manufacturing Technology Institute (CMTI),** Bengaluru as a Part of the BGSIT AICTE lab ideathon workshop on 27th March 2025.

The program was organized by **Dr. Shashikala S V,** Vice principal and HOD of CSE Dept and **Dr Girish K B** Professor, Dept of ME, which was accompanied **by Dr Manu Y M** Associate professor Dept of CSE, **Mrs. Shruthi** K S Asst professor and **Ms. Ananya A**, Asst professor Dept of CSE and **35 students of 4th and 6th semester**, CSE Department, gained invaluable insights into modern manufacturing processes and their applications in industry.

The program commenced with an introduction to the Precision Engineering Lab, where students gained knowledge about EDM (Electrical Discharge Machining), precision surface grinding machines, and ultra-precision machining centers. Following this, students visited the Nano Manufacturing Technology Centre, where experts provided insights into Nano-shaped surface engineering, assembly, and testing processes. Later, the students were taken to the Sensor Technology Development Centre, where they learned about sensor packaging, characterization, deposition, and etching processes in the fabrication lab, along with X-ray inspection techniques used in advanced manufacturing.

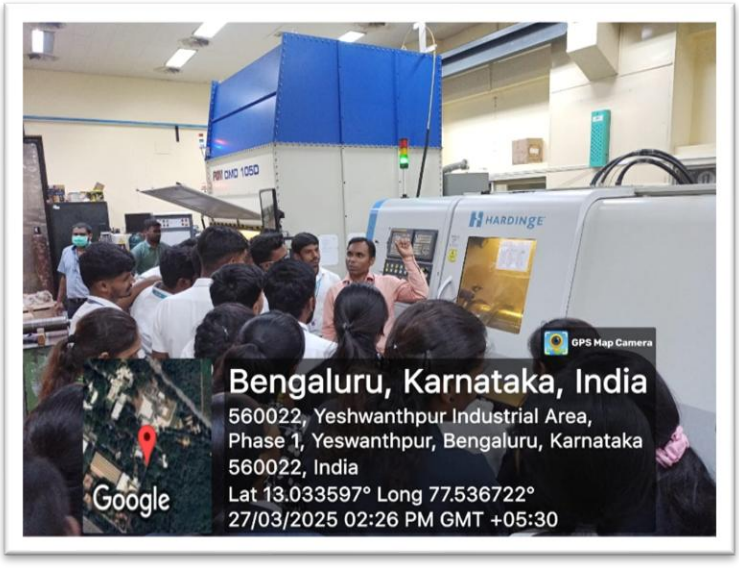
Students also interacted with researchers, scientists, and engineers working at the institute, gaining valuable insights into the latest advancements in precision engineering, Nano manufacturing technologies, sensor development, and advanced fabrication techniques.

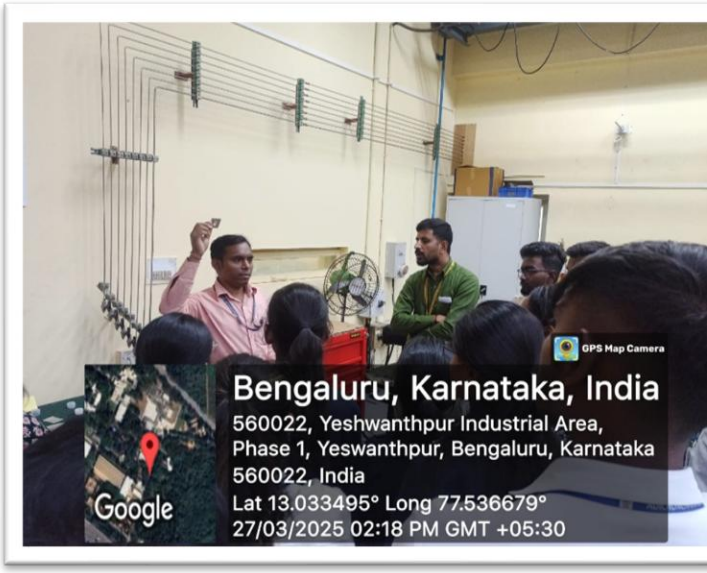
The industrial visit to the Central Manufacturing Technology Institute, Bangalore, was highly informative and enriching. Students gained practical exposure to precision engineering, nano manufacturing technologies, and sensor development. The visit also provided an opportunity to interact with industry experts, enhancing their understanding of cutting-edge research and technological advancements in these fields.

Objectives:

- Expose students to real-world industrial practices in advanced manufacturing technologies.
- Bridge the gap between theoretical knowledge and practical application by directly observing high-precision tools and automation systems.
- Inspire project-based learning and ideation for future academic or entrepreneurial pursuits.









Outcomes:

- The visit sparked interest in collaborative innovation, motivating students to explore real-world challenges in manufacturing.
- Students returned with ideas for mini-projects and research topics aligned with the goals of the AICTE IDEA Lab initiative.
- Participants developed a clearer perspective on how emerging technologies like AI, IoT, and data analytics are transforming industry workflows.

Sustainable Development Goals:

SDG4: Quality Education.
SDG9: Industry Innovation and Infrastructure

We want to thank our beloved principal, Dr. Shobha B.N, and Dr. Shashikala S V, HOD, Department of CSE, for giving us the opportunity and providing bus facilities for this Visit.